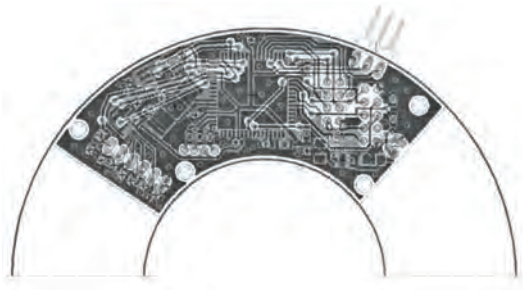
Strain sensor for a non-instrumented anchor, in particular an expansion anchor, and strain monitoring system

Description of the solution:

The system is used to acquire and archive rock mass stress data as a function of real time to generate a dynamic rock mass stress map. This map is used to predict locations in the mine workings with a higher risk of a mining disaster. Monitoring is continuous, long-term. The system is built into near-roof assembly of mechanically fixed anchors (such as expansion anchors and bonded anchors). The sensor clearly and autonomously signals the current states of the excavation lining, such as normal operation, danger or alarm status.



Benefits of the solution:

- Non-invasive inspection of the condition of the anchor lining .
- Possibility of installing on pre-installed anchors, without interfering with the anchors to be mount.
- Possibility of archiving and radio-transmitting measurement results for further processing and analysis.

Area of application:

Mining (roof monitoring/anchor lining).

Technology readiness level:

7

Intellectual property:

Invention: PAT.248404

Owner:

KGHM Polska Miedź S.A.

Contact:

wlasnosc.intelektualna@kghm.com

